What we claim is:

1. An ATM switch provided in a network where an MPLS traffic and an ATM traffic coexist comprising:

a line interface, and

5   a call processor,

the line interface having;

determination means for determining, according to a received ATM cell, which traffic the cell belongs to;

queuing means for queuing the cell classified based on a

10   determination result of the determination means, and

read means for reading the cell from the queuing means at read intervals based on bandwidth allocation rates of both traffics preset by the call processor.

2. The ATM switch as claimed in claim 1 wherein the read means

15   read, in absence of one of the two traffics, the cell of the other traffic.

3. The ATM switch as claimed in claim 1 wherein the call processor performs a connection admission to read the cell only when a total of a bandwidth demanded by a connection to be newly admitted for the MPLS traffic and a present bandwidth exceeds a bandwidth

20   determined by the allocation rates, and otherwise rejects the connection admission.

4. The ATM switch as claimed in claim 1 wherein the call processor performs a connection admission to read the cell unrestrictedly regardless of a bandwidth demanded by a connection to be newly

25   admitted for the MPLS traffic.

5. The ATM switch as claimed in claim 1 wherein the queuing means have service classes of a plurality of priorities for the traffics, and the call processor provides a bandwidth allocation rate varied per priority for the ATM traffic and a bandwidth allocation rate common to

30   each priority for the MPLS traffic.

6. The ATM switch as claimed in claim 5 wherein the call processor

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sets the bandwidth allocation rates so that a total of the bandwidth allocation rates for the priorities exceeds 1.

7.   The ATM switch as claimed in claim 5 wherein the call processor sets the bandwidth allocation rates so that a total of the bandwidth allocation rates for the priorities becomes 1.

8.   The ATM switch as claimed in claim 5 wherein the read means read the cell according to another priority when the read interval is not reached in any of the service classes.